

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/549,670
Applicant : Stephen Moreton
Filed : July 3, 2006
Title : SILICA-BASED INDICATING DESICCANTS
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Confirmation No. : 3701
Group Art Unit : 1797
Examiner : Bryan T. Kilpatrick
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Docket No. : 0068905-000267

REPLY BRIEF

Publication (WO02/057772, to Moreton, hereinafter "the '772 publication") reports an indicating desiccant that requires a combination of copper and bromine for indication of relative humidity between 20-30%. Applicant and the Examiner disagree as to whether the '772 publication anticipates, or makes obvious, claims for an indicating desiccant that expressly excludes copper but instead uses a combination of iron and bromine for indication of relative humidity less than 20%. For the reasons given below, the '772 publication renders the claims of the instant application neither anticipated nor obvious.

A. The '772 publication does not teach an essentially copper-free system.

The '772 publication presents a "system based on copper salts...." (Page 2, line 6). The Examiner, however, takes the position that a "system based on copper salts" anticipates or makes obvious a system with little or no copper. This is based on the disclosure in the '772 publication of a "source of copper being present in an amount up to

0.5 per cent by weight." (Page 3, lines 26-27). Because there appears to be no lower limit, the Examiner apparently assumes that this disclosure includes essentially copper-free systems or systems with less than 0.002% by weight.

The Examiner's interpretation fails to consider information present in the very sentence from which the Examiner has drawn his range. The silica-based material used in the '772 patent must have "impregnated thereon a source of copper." (Page 3, line 25). A material with a source of copper may not, by definition, have essentially no copper. The Examiner's interpretation of the '772 publication would distort the overall meaning of the publication and preclude making the product claimed in the publication. This is not permitted. *See In re Kirsch*, 498 F.2d 1389, 182 USPQ 286 (CCPA 1974).

Even the minimum amount of copper reported by the '772 publication, 0.01 per cent by weight, is significantly higher than "less than 0.002% by weight" claimed in the application on appeal. Moreover, the '772 publication ties the 0.01% to a color change at a relative humidity between 20 to 30%, not to one below 20%. The copper-based system of the '772 publication does not teach the essentially copper-free system claimed by the Applicant.

2. The '772 publication does not teach an iron-based system.

The Examiner argues that the '772 publication's disclosure of the addition of transition metals to its copper-based system is sufficient to anticipate claims drawn to an iron-based system. This is an overly broad reading of the '772 publication. The '772 publication requires that the transition metals be added as a color modifier to an existing copper-based system. There is no contemplation of using a system based jointly on a transition metal and bromine without the participation of copper. This is reinforced by

the fact that the '772 publication **only** teaches the addition of a source of bromine along with the addition of a source of copper. There is no teaching or suggestion of inclusion of bromine in an iron-based system.

3. The '772 publication does not teach indication of relative humidity less than 20% in an iron-based system.

The Examiner argues that the '772 publication's discussion of a "desiccant capable of reducing the relative humidity of a gas to a value below about 30 per cent" is sufficient to satisfy the claim limitation of the application on appeal requiring indication at a relative humidity below 20%. It is not. Indication at a relative humidity below 20% is accomplished in the application on appeal by adjustment of a system of iron and bromine. The '772 publication **only** mentions the "less than 30 per cent" limitation in the context of adjustment of a copper-based system including bromine.

The Examiner has not given any rationale regarding why one skilled in the art would be motivated to adjust the amount of iron in an iron and bromine system based on a paragraph that discusses adjustment of copper and bromine in a copper-based system. Pretending that there is such a rationale is merely an improper combination of various unrelated elements selected from different parts of the '772 publication.

4. The Examiner's conclusion is based on impermissible hindsight.

Nothing in the '772 publication would teach or suggest that a skilled person forego the use of copper and base an indicator system on iron and bromine to detect relative humidity below 20% and arrive at the presently claimed invention. The arguments of the Examiner are a patchwork of unconnected teachings in the '772 publication, connected only by the common thread of hindsight based on review of the

instant application. Use of hindsight in this manner is impermissible. *See KSR Int'l Co. v. Teleflex, Inc.*, 500 U.S. 398, 421, 82 USPQ2d 1385, 1397 (2007).

For these reasons, as well as those cited in the Applicant's original Brief on Appeal, the claims on appeal are patentable over the cited reference. Reversal of all grounds of rejection and allowance of all pending claims are respectfully requested.

Respectfully submitted,

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November 22, 2010